

REMARKS

INTRODUCTION

In accordance with the foregoing, no claims have been amended. Claims 1-18 are pending and under consideration.

CLAIM REJECTIONS – 35 USC 103(a)

Claims 1, 2, 4-10 and 12-18 were rejected under 35 USC 103(a) as being unpatentable over Shimura et al. (US 6,295,569) (hereinafter “Shimura”) in view of Ohashi et al. (US 5,881,309) (hereinafter “Ohashi”).

Shimura discusses a storage apparatus. Figures 20A and 20B of Shimura show circuit block diagrams of a controller and an enclosure that are provided for the drive main body 12 shown in Figure 1. The optical disk drive of Shimura includes a controller 210 and an enclosure 212. The controller 210 has: an MPU 214 for performing a whole control of the optical disk drive; an ATA interface controller 216 for transmitting and receiving commands and data to/from an upper apparatus; a formatter 218 for performing processes which are necessary to write and read data to/from the medium; and a buffer memory 220. Shimura 13:38-13:48.

Ohashi discusses an electronic file system and method adapted for use with a general purpose operating system for performing parallel processing of image data. In Ohashi, optical disks can be inserted into and removed from optical disk drives 23, 24 from the front face of the housing of a personal computer 21. Also, since the hardware such as the optical disk drives and controller for the electronic file system are incorporated within the housing of the personal computer 21, a space-saving system can be provided. Ohashi, 3:45-3:53 and Figure 3.

Further in Ohashi, connecting an image control board 16 to a slot 160 on the ISA bus allows a scanner and an optical disk drive to be connected to the electronic file system through the board 16. A memory 1 (163) has programs executed by a CPU 162. A request to the image control board 16 from the image control board driver 48 is synchronized by an ISA bus I/F controller 164 and passed to an internal bus controller 161 through this ISA bus I/F controller 164. The internal bus controller 161 establishes the synchronization of the bus which is connected with the CPU 162; an image memory controller 165; a scanner controller 167, and an optical disk controller 168 (for traffic control). Ohashi, 4:27-4:38 and Figures 4 and 5.

Claims 1 and 2

Claim 1 recites: "...a control board to control the driving unit, which is installed at an interface device of the computer, separate from the driving unit, and connected to the connection board." In contrast to claim 1, Shimura fails to teach that the control board is separate from the driving unit. This deficiency in Shimura is not cured by Ohashi. Ohashi does not discuss that the control board to control the driving unit is separate from the driving unit. The controller 168 found in Ohashi relied upon by the Examiner is for traffic control, not for controlling the driving unit as is recited in claim 1. This is clearly stated at column 4, line 38 of the Ohashi reference.

Further, Ohashi refers to an electronic file system featuring an image control board having memory and the capability to connect several serial devices so that the serial devices may be operated in parallel. The intended purpose of the present invention is a slim optical disc drive. Similarly, an object of Shimura is a small sized portable storage apparatus. In contrast, the control board apparatus and method discussed in Ohashi would have a greater size rather than a slimmer size and would only be effective in a desk top setting. As such, the Applicant's respectfully submit that the proposed combination of the storage apparatus of Shimura to the electronic file system of Ohashi would render the storage apparatus of Shimura inoperable for its intended purpose and that therefore the combination is improper.

Claim 2 is dependent on claim 1 and is therefore believed to be allowable for at least the foregoing reasons. Further, claim 2 recites features that patentably distinguish over Shimura and Ohashi, taken alone or in combination. For example claim 2 recites that the interface device is a PCMCIA slot.

Withdrawal of the foregoing rejection is requested.

Claims 4-10 and 12-18

Independent claims 4 and 12 recite: "...a controller to control the driving unit having an interface to connect to the computer, wherein the controller is located remotely from the driving unit." In contrast to claims 4 and 12, similar to the arguments made regarding claim 1, Shimura fails to teach that the controller is located remotely from the driving unit. This deficiency in Shimura is not cured by Ohashi.

Claims 5-10 and 13-18 are dependent on claims 4 and 12, respectively, and are therefore believed to be allowable for at least the foregoing reasons. Further, claims 5-10 and 13-18 recite features that patentably distinguish over Shimura and Ohashi, taken alone or in combination. For example claim 5 recites that the driving unit is an external device that connects to the computer by a cable.

Withdrawal of the foregoing rejection is requested.

CLAIM REJECTIONS – 35 USC 103(a)

Claims 3 and 11 were rejected under 35 USC 103(a) as being unpatentable over Shimura in view of Ohashi and further in view of Liu et al. (US 6,502,755) (hereinafter “Liu”).

Liu discusses an optical data storage card including an optical data storage layer supported on the card and a plurality of data storage tracks for storing data therein. Liu, Abstract.

Claims 3 and 11 are dependent on claims 1 and 4, respectively and are therefore believed to be allowable for the foregoing reasons. Further, claims 3 and 11 patentably distinguish over Shimura and Liu, taken alone or in combination. For example, claim 3 recites that the interface device is a USB port.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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